

**AMENDMENTS TO THE SPECIFICATION** begin on page 8 of this paper.

**REMARKS/ARGUMENTS** begin on page 2 of this paper.

### **REMARKS**

Applicant respectfully requests reconsideration of the instant application on the basis of the original Claims. Claims 1, 14 and 27 are the main claims and the remaining claims are directly or indirectly dependent upon those.

The Examiner has rejected the claims as being unpatentable over U.S. Patent No. 5,495,576 by Ritchey (*Ritchey*) in view of U.S. Patent No. 5,583,795 by Smyth (*Smyth*). It is believed that Claims 1 to 36 are clearly distinguishable over these 2 references for the reasons that will be set forth.

#### **Changes to the Specification**

The abstract has been changed as requested by the Examiner on page 2 of the subject Office Action.

#### **35 U.S.C. § 103 Grounds for Rejection**

The Examiner rejected Claims 1-39 under 35 U.S.C. § 103(a) as being unpatentable mainly over U.S. Patent No. 5,495,576 by Ritchey (*Ritchey*) in view of U.S. Patent No. 5,583,795 by Smyth (*Smyth*). Applicants respectfully traverse these rejections for the reasons discussed below.

The *Ritchey* reference describes a system that combines information from multiple sensors to generate a computer model of a scene -- "information fusion". The *Ritchey* disclosure does not describe an "image fusion" system, where multiple images of the same scene are combined to present a single image to the user. As such, perceptual issues such as eliminating parallax between sensors (to simulate a true monocular image) or eliminating parallax between the eye and sensors (to give the user the perception of directly viewing the image) are not relevant to the *Ritchey* or *Smyth* inventions.

The *Smyth* reference is simply a head-mounted gaze-tracking system. Other than being head-mounted, it is not relevant to the *Ritchey* disclosure or to the present invention. Unlike the present invention, the location of the head-mounted gaze tracker is not related to image perception, left-right eye interchangeability, or weight balancing. The sensor utilized in the *Smyth* device is aligned in the line of sight of the eye of the use in order to receive reflections from the eye.

Thus, the *Ritchey*, *Smyth* and the present invention have different functions, and one of ordinary skill in the art would not have been motivated to substitute *Smyth's* securing means for mounting a sensor unit to a head adapter with a man-portable sensor-fusion system, since its function is not related to image perception or weight balancing.

In order to establish a prima facie case of obviousness, the prior art teachings must be sufficient to suggest making the substitution or modification necessary to make the claimed invention to one of ordinary skill in the art, In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984), in the absence of applicant's own disclosure. See also, In re Laskowski, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398-99 (Fed. Cir. 1989) and Interconnect Planning Corp. v.

Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985). The motivation to make a specific structure

“is not abstract, but practical, and is always related to the properties or uses one skilled in the art would expect the [structure] to have, if made.”

In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979). See also Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985)(“Critical inquiry is whether ‘there is something in the prior art as a whole to suggest the desirability, and, thus, the obviousness, of making the combination’”).

There must have been a reason apparent at the time the invention was made to a person of ordinary skill in the art for applying the teachings at hand to effect the modification necessary to reach the claimed invention in the manner proposed or the use of the teaching as evidence of obviousness will entail prohibited hindsight. Graham v. John Deere of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), and In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975).

Here there is lacking the requisite suggestion in these prior art disclosures that would have motivated the artisan to do what the Examiner has characterized as being an obvious combination.

Independent Claim 1, as amended, recites the following elements, the most pertinent to this discussion being presented in bold type for the convenience of the Examiner:

1. A man-portable sensor fusion system comprising:

sensor unit having at least a first and second sensor arranged along a sensor axis;

head adapting means for providing support to mount at least one selected device about a user's cranium; and,

securing means attached to the sensor unit for mounting the sensor unit to the head adapter; **the sensor unit being mounted above an ocular axis formed between a pair of eyes of the user when the sensor unit is attached to the head adapter element; the sensor axis when the sensor unit is secured to the user with the head adapter element is essentially perpendicular to the user's ocular axis.**

Applicant respectfully submits that the combination of *Ritchey* with *Smyth* does not disclose, teach, or suggest that the sensor unit is mounted above an ocular axis formed between a pair of eyes of the user when the sensor unit is attached to the head adapter element and that the sensor axis when the sensor unit is secured to the user with the head adapter element is essentially perpendicular to the user's ocular axis as recited by Claim 1. As conceded by the Examiner, *Ritchey* "fails to recite [an] ocular axis." Instead, as noted by the Examiner, *Smyth* discloses an ocular axis, but *Smyth* teaches that the sensor 2b is in the ocular axis or line of sight in order that the sensor can receive reflections from the eye. See Col. 6, lines 11-13, and Figure 3. Therefore, Claim 1 is not obvious in light of the cited art and Applicants respectfully submit that this rejection should now be withdrawn.

The combination of *Ritchey* and *Smyth* fails to teach or suggest these claim elements.

By the present structure Applicants are able to achieve the advantages which have hitherto not been achievable through any adaptation of the prior art. It is therefore believed to be

clear that the particular structure of Applicants is extremely important and is not a mere matter of design. It should also be noted that the *Ritchey* reference has been available since February 27, 1996 and the *Smyth* reference has been available since December 10, 1996. Between that time and the present, no one except Applicants have constructed a man-portable sensor system with the sensor unit being mounted above an ocular axis formed between a pair of eyes of the user when the sensor unit is attached to the head adapter element and the sensor axis, when the sensor unit is secured to the user with the head adapter element, is essentially perpendicular to the user's ocular axis, without the disadvantages discussed above and which are clearly set forth on the first few pages of Applicants' specification. It is certainly believed to be pertinent that no-one has achieved or anticipated Applicants' structure despite the availability of the reference.

It is improper to use hindsight having read the Applicant's disclosure to "pick and choose" among isolated prior art references to disparage the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Even where an invention is, as a whole, fully disclosed by a combination of prior art elements, such elements cannot be combined to defeat a patent as obvious unless the art teaches or suggests the desirability of making the combination. ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). Thus, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, U.S.P.Q.2d 1780 (Fed. Cir. 1992). Finally, it is the invention as a whole that is important. Focusing on the obviousness of substitutions and differences, instead of on the invention as a whole, is a legally improper way to simplify the often difficult determination of obviousness. Gillette Co. v. S. C Johnson & Son, Inc., 919 F. 2d 720, 16 U.S.P.Q. 1923 (Fed. Cir. 1990).

To the extent that this rejection is maintained by the Examiner, Applicants respectfully requests that the Examiner specifically identify the particular portion in the reference or knowledge upon which such a continuing rejection is maintained.

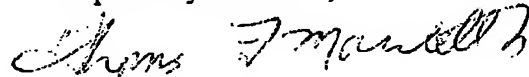
The remaining Dependent Claims that depend from independent Claims 1, 14, or 27 are also not made obvious by *Ritchey* in view of *Smyth* because they include the limitations of Claims 1, 14, or 27 and add additional elements that further distinguish the art. Therefore, Applicant respectfully requests that Claims 1-36 be allowed.

### Conclusion

Applicant has now made an earnest attempt to place this case in condition for allowance. In light of the amendments and remarks set forth above, Applicant respectfully requests reconsideration and allowance of Claims 1-36.

If there are matters which can be discussed by telephone to further the prosecution of this Application, Applicant invites the Examiner to call the attorney at the number listed below at the Examiner's convenience.

Respectfully submitted,



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